

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Original) A home network management system residing in a home master device connected to at least one home appliance through a first network and to at least one client device through a second network separated from the first network, and being controlled by a central processing means of the home master device, the system comprising:

a channel handling module for transmitting/receiving a first type of packet between the home master device and the home appliance;

a transmission handling module for performing conversion between the first type of packet from the channel handling module and a first type of message from a service management module, and transmitting the converted packet and message;

the service management module for performing conversion between the first type of message from the transmission handling module and a second type of message from a connection handling module, and transmitting the converted messages; and

the connection handling module for performing conversion between a second type of extension message from the client device and the second type of message from the service management module.

2. (Original) The system of claim 1, further comprising a system management module controlled by the central processing means, for performing an initialization operation for communication with the client device and/or the home appliance by using necessary variables of the channel handling module, the transmission handling module and the service management module.

3. (Original) The system of claim 2, comprising one message queue which is a transmission path of the whole packets and/or messages, wherein the message queue receives packets and/or messages having types corresponding to reception modules from the arbitrary module of the modules and stores the packets and/or messages, and the modules search the message queue and obtain the packets and/or messages having the types corresponding to each module.

4. (Original) The system of claim 2, comprising a plurality of message queues which are transmission paths of the whole packets and/or messages, wherein the arbitrary module of the modules stores packets and/or messages having message types corresponding to reception modules in the message queues of the reception modules, and the reception modules search their message queues and obtain the packets and/or messages having the message types.
5. (Canceled)
6. (Original) The system of claim 3 or 4, wherein the message transmitted to the message queue to be transmitted between the service management module and the transmission handling module comprises the message type, an auxiliary factor and a first type of message.
7. (Original) The system of claim 6, wherein, when the message comprises a control command from the service management module to the transmission handling module, the auxiliary factor comprises an ID code of the home appliance and a packet type.
8. (Original) The system of claim 7, wherein, when the message comprises a response from the transmission handling module to the service management module, the auxiliary factor comprises an ID code of the home appliance and a reception error code.
9. (Original) The system of claim 6, wherein, when the message comprises a control command from the transmission handling module to the service management module, the auxiliary factor comprises an ID code of the home appliance, a packet type, a duplicate reception flag and a reception error code.
10. (Original) The system of claim 9, wherein, when the message comprises a response from the service management module to the transmission handling module, the auxiliary factor comprises an ID code of the home appliance and a packet type.
11. (Original) The system of claim 1, wherein the connection handling module provides a message ID code to the received second type of extension message.

12. (Canceled)

13. (Original) The system of claim 1, wherein the second type of extension message comprises an ID code of the client device, a message code and the second type of message.

14. (Original) The system of claim 13, wherein the connection handling module reads the message code and the second type of message from the second type of extension message, and transmits the code and message to the service management module.

15. (Original) The system of claim 1, comprising at least one communication control protocol port communicating with the connection handling module for communication with the client device.

16. (Canceled)

17. (Canceled)

18. (Currently Amended) The system of claim 1, wherein the transmission handling module comprises a sending handling module for generating a first type of packet by using the first type of message and an the auxiliary factor from the service management module, and sending the packet to the channel handling module.

19. (Canceled)

20. (Canceled)

21. (Original) The system of claim 1 or 18, wherein the transmission handling module comprises a reception handling module for separating an error check field and a first type of message from the first type of packet from the channel handling module, and transmitting the field and message to the service management module.

22. (Currently Amended) The system of claim 1, wherein[[,]]:

when the home appliances are identical:

~~receiving a plurality of first type of messages converted from a plurality of second type of messages are identical~~, the service management module ends one cycle for one first type of message and transmits the succeeding first type of message to the transmission handling module upon receiving a plurality of first type of messages converted from a plurality of second type of messages[[,]]; and

when the home appliances are different[[,]]:

the service management module consecutively transmits the first type of messages to the transmission handling module.

23. (Original) The system of claim 1, wherein the service management module further comprises a message blocking module for processing the received first type of message.

24. (Canceled)

25. (Canceled)

26. (Original) The system of claim 1, further comprising a log file handling module for storing the first type of packet transmitted/received through the channel handling module.

27. (Original) The system of claim 1, further comprising a network database handling module for storing a state and information of the home appliance.

28. (Original) The system of claim 1, further comprising a log file handling module for storing the second type of extension message transmitted/received through the connection handling module.

29-31. (Canceled)